

R E M A R K S

This is in response to the Official Action mailed October 3, 2001 for the above-captioned patent application. Claim 9 has been allowed. New Claims 22-40 have been added. Claims 1-6 and 8-40 are now pending in the application. Claims 1, 9, and 10 have been amended as is further discussed below.

The Specification has been objected to for lacking antecedent basis for the limitation recited in Claim 1 that the precursor is held at an elevated temperature "for at least 12 hours" in the heat treatment. Accordingly, the paragraph beginning on p. 10, line 12 has been amended to expressly recite that the heat treatment is carried out for at least 12 hours. It is respectfully submitted that this amendment is supported by Claim 1 as originally filed and thus does not constitute new matter. In view of the foregoing, withdrawal of the objection to the Specification is respectfully requested.

The Examiner has noted that the amendment filed on November 28, 2001 was not entered as to Claims 10, 16, and 17 since the amended claims did not recite the limitations of the claims originally filed. Claim 10 has now been rewritten in independent form to include the limitations of base Claim 1. Applicants respectfully request examination of Claim 10 as amended and of original Claims 16 and 17.

Claims 1-6, 8, 11, 13-19 and 21 have been rejected under 35 U.S.C. § 102(b) as anticipated by WO 99/21715 (McCullough et al.) with U.S. Patent No. 5,510,420 (Dammel et al.) to show that typical novolak resins have glass transition temperatures between 90 °C and 120 °C. The Examiner's position is that McCullough et al. teaches a method of manufacturing a printing form precursor comprising a positive working coating composition comprising a phenolic resin, where the method includes a heat

treatment of a substrate coated with the coated composition and the treatment is carried out preferably for at least 24 hours, that McCullough et al. teaches covering plate samples with a polythene coated paper, and that since Applicants use polythene to wrap the plate precursors, Mc Cullough et al. teaches a heat treatment step "under conditions which inhibit the removal of moisture from the precursor during the heat treatment" as recited in Claim 1.

However, it is respectfully submitted that Claims 1-6, 8, 11, 13-19 and 21 are not anticipated by McCullough et al. with Dammel et al. Claims 1, 17-19, and 21 expressly recite that the heat treatment step takes place under conditions which inhibit the removal of moisture from the precursor during the heat treatment. In contrast, the conditions under which the plate precursors are wrapped in Example 1 of McCullough et al. do not inhibit the removal of moisture. This can be readily seen by considering the significant differences between the method described in Example 1 of McCullough et al. and the method described in Example 1 in the present application. In Example 1 of McCullough et al., the interleaved plates are individually wrapped with paper, but the edges of the wrapping are not sealed down. As a result, the procedure of McCullough et al. does not inhibit removal of moisture since the wrapping edges do not form a seal and therefore allow further removal of moisture. Therefore, the method of the present invention inhibits the removal of moisture from the plate precursors during heat treatment, in contrast to McCullough et al., which does not disclose a method to inhibit the removal of moisture. Accordingly, it is respectfully submitted that Claims 1, 17-19, and 21 (and all the claims ultimately dependent thereon) are not anticipated by McCullough et al. with Dammel et al. In view of the foregoing, withdrawal of the rejection under 35 U.S.C. §

102(b) of Claims 1-6, 8, 11, 13-19 and 21 as anticipated by McCullough et al. with Dammel et al. is respectfully requested.

Claim 12 has been rejected under 35 U.S.C. § 103(a) as obvious in view of McCullough et al. in combination with U.S. Patent No. 5,667,942 (Nakao et al.). The teachings of McCullough et al. have been discussed above. The Examiner's position is that although McCullough et al. does not teach a method of inhibiting the removal of moisture by carrying out the heat treatment in an environment having elevated moisture content, it would have nevertheless been obvious to combine the teaching of Nakao et al. of prebaking a photoresist in an atmosphere containing water vapor with the heat treatment taught by McCullough et al. to obtain the invention of Claim 12.

However, it is respectfully submitted that Claim 12 is not obvious in view of McCullough et al. in combination with Nakao et al. Claim 12 is dependent on Claim 1 which, as discussed above, expressly recites that the heat treatment step takes place under conditions which inhibit the removal of moisture from the precursor during the heat treatment. In contrast, as also discussed above in the context of the corresponding § 102(b) rejections, McCullough et al. does not disclose or suggest a procedure that inhibits the removal of moisture.

Nakao et al. does not cure the deficiency of McCullough et al. As acknowledged by the Examiner, the method of Nakao et al. is intended to impart a large amount of water onto the resist film (Official Action, p. 7, lines 7-8). Since the precursor comes in contact with the surrounding atmosphere containing water vapor, a state of equilibrium is reached in which moisture is transferred to and removed from the precursor at the same rate.

Furthermore, the prebake step of Nakao et al. takes place for 90 seconds (see col. 3, line

33 of Nakao et al.), and not for at least 12 hours as expressly recited in Claim 1. *So?*

Accordingly, Nakao et al. does not disclose or suggest inhibiting the removal of moisture present in the precursor as recited in Claim 1. Moreover, the prebake of Nakao et al. in the presence of water vapor is carried out so that the exposed coating will develop away quickly in a developer (*see* col. 3, line 27 of Nakao et al.; *see also* Official Action, p. 7, line 8). In contrast, the purpose of wrapping the precursors is to allow the coating at the edges of the printing plates to remain after development (*see, e.g.*, Specification, p. 29, lines 8-9). Accordingly, it would not be obvious to one of ordinary skill in the art to combine Nakao et al. with McCullough et al. to practice the present invention. *contrary*

Therefore, it is respectfully submitted that Claim 12 is not obvious in view of McCullough et al. in combination with Nakao et al. In view of the foregoing, withdrawal of the rejection under 35 U.S.C. § 103(a) of Claim 12 as obvious in view of McCullough et al. in combination with Nakao et al. is respectfully requested.

Claim 12 has also been rejected under 35 U.S.C. § 103(a) as obvious in view of McCullough et al. in combination with U.S. Patent No. 6,002,108 (Yoshioka). The teachings of McCullough et al. have been discussed above. The Examiner's position is that although McCullough et al. does not teach a method of inhibiting the removal of moisture by carrying out the heat treatment in an environment having elevated moisture content, it would have nevertheless been obvious to combine the teaching of Yoshioka et al. of using a baking apparatus comprising a mechanism for supplying a gas containing a water component into the casing containing the substrate with the heat treatment taught by McCullough et al. to obtain the invention of Claim 12.

However, it is respectfully submitted that Claim 12 is not obvious in view of McCullough et al. in combination with Yoshioka. As discussed above, Claim 12 is dependent on Claim 1 which, as discussed above, expressly recites that the heat treatment step takes place under conditions which inhibit the removal of moisture from the precursor during the heat treatment. In contrast, as also discussed above in the context of the corresponding § 102(b) rejections, McCullough et al. does not disclose or suggest a procedure that inhibits the removal of moisture. Yoshioka does not cure the deficiency of McCullough et al. As acknowledged by the Examiner, the method of Yoshioka supplies a gas containing a water component into the casing (Official Action, p. 8, lines 5-6). Since the precursor comes in contact with the water, a state of equilibrium is reached in which moisture is transferred to and removed from the precursor at the same rate. So what? Furthermore, the baking step of Yoshioka takes place for 70 to 150 seconds, and not for at least 12 hours as expressly recited in Claim 1. Accordingly, Yoshioka does not disclose or suggest inhibiting the removal of moisture present in the precursor as recited in Claim 1. Moreover, the purpose of Yoshioka is to render "either the radiated portion or irradiated portion... soluble in alkali" (see col. 1, lines 63-65 of Yoshioka). In contrast, as stated above, the purpose of wrapping the precursors is to allow the coating at the edges of the printing plates to be more resistant to the developer, and not less resistant. Contrary. Accordingly, it would not be obvious to one of ordinary skill in the art to combine Yoshioka with McCullough et al. to practice the present invention. Therefore, it is respectfully submitted that Claim 12 is not obvious in view of McCullough et al. in combination with Yoshioka. In view of the foregoing, withdrawal of the rejection under

35 U.S.C. § 103(a) of Claim 12 as obvious in view of McCullough et al. in combination with Yoshioka is respectfully requested.

Claims 17, 18, 20, and 21 have been rejected under 35 U.S.C. § 102(b) as anticipated by Nakao et al. According to the Examiner, Nakao et al. teaches a resist pattern forming method which includes a prebake step of prebaking the photoresist in an atmosphere containing water vapor. The Examiner's position is that the method of Nakao et al. imparts water to the resist film (*see* Official Action, p. 9, lines 10-11) and thereby anticipates the present invention.

However, it is respectfully submitted that Claims 17, 18, 20, and 21 are not anticipated by Nakao et al. As discussed above, Claims 17, 18, 20, and 21 expressly recite that the heat treatment step takes place under conditions which inhibit the removal of moisture from the precursor during the heat treatment. In contrast, as discussed above, the method of Nakao et al. is intended to impart a large amount of water onto the resist film (Official Action, p. 7, lines 7-8). Since the precursor comes in contact with the surrounding atmosphere containing water vapor, a state of equilibrium is reached in which moisture is transferred to and removed from the precursor at the same rate. *per pg. 7.*

Accordingly, Nakao et al. does not disclose or suggest inhibiting the removal of moisture present in the precursor as recited in Claims 17, 18, 20, and 21. Accordingly, it is respectfully submitted that Claims 17, 18, 20, and 21 are not anticipated by Nakao et al. In view of the foregoing, withdrawal of the rejection under 35 U.S.C. § 102(b) of Claims 17, 18, 20, and 21 as anticipated by Nakao et al. is respectfully requested.

Claims 17, 18, 20, and 21 have been rejected under 35 U.S.C. § 102(b) as anticipated by Yoshioka. According to the Examiner, Yoshioka teaches a baking

apparatus which includes a mechanism for supplying a gas containing a water component into the casing surrounding the substrate. The Examiner's position is that the water component can react with the resist film (*see* Official Action, p. 10, line 12) and thereby anticipates the present invention.

However, it is respectfully submitted that Claims 17, 18, 20, and 21 are not anticipated by Yoshioka. As discussed above, Claims 17, 18, 20, and 21 expressly recite that the heat treatment step takes place under conditions which inhibit the removal of moisture from the precursor during the heat treatment. In contrast, as discussed above, the method of Yoshioka supplies a gas containing a water component into the casing. Since the precursor comes in contact with the water, a state of equilibrium is reached in which moisture is transferred to and removed from the precursor at the same rate. Accordingly, Yoshioka does not disclose or suggest inhibiting the removal of moisture present in the precursor as recited in Claims 17, 18, 20, and 21. Accordingly, it is respectfully submitted that Claims 17, 18, 20, and 21 are not anticipated by Yoshioka. In view of the foregoing, withdrawal of the rejection under 35 U.S.C. § 102(b) of Claims 17, 18, 20, and 21 as anticipated by Yoshioka is respectfully requested.

Claims 17-19 and 21 have been rejected under 35 U.S.C. § 103(a) as being obvious in view of U.S. Patent No. 6,143,471 (Takata et al.) in combination with Nakao et al. According to the Examiner, Takata et al. teaches that a positive photosensitive composition can be used to prepare a printing plate comprising a polymer soluble in alkaline developer, a near-IR absorbing dye, and a compound which lowers the solubility of the polymer in the alkaline developer. The Examiner's position is that while Takata et al. does not teach a heat treatment step in which removal of moisture is inhibited, it

would have been obvious to combine the teachings of Takata et al. with the teachings of Nakao et al., which discloses a prebake step in a water vapor atmosphere as discussed above.

However, it is respectfully submitted that Claims 17-19 and 21 are not obvious in view of Takata et al. in combination with Nakao et al. As discussed above, Claims 17-19 and 21 expressly recite that the heat treatment step takes place under conditions which inhibit the removal of moisture from the precursor during the heat treatment. In contrast, as discussed above, the method of Nakao et al. is intended to impart a large amount of water onto the resist film (Official Action, p. 7, lines 7-8). Since the precursor comes in contact with the surrounding atmosphere containing water vapor, a state of equilibrium is reached in which moisture is transferred to and removed from the precursor at the same rate. Accordingly, Takata et al. in combination with Nakao et al. does not disclose or suggest inhibiting the removal of moisture present in the precursor as recited in Claims 17-19 and 21. Moreover, as discussed above, the prebake of Nakao et al. in the presence of water vapor is carried out so that the exposed coating will develop away quickly in a developer. In contrast, the purpose of wrapping the precursors is to allow the coating at the edges of the printing plates to remain after development (*see, e.g.*, Specification, p. 29, lines 8-9). Accordingly, it would not be obvious to one of ordinary skill in the art to combine Nakao et al. with Takata et al. to practice the present invention. Accordingly, it is respectfully submitted that Claims 17-19 and 21 are not obvious in view of Takata et al. in combination with Nakao et al. In view of the foregoing, withdrawal of the rejection under 35 U.S.C. § 103(a) of Claims 17-19 and 21 as obvious in view of Takata et al. in combination with Nakao et al. is respectfully requested.



Claims 17-19 and 21 have been rejected under 35 U.S.C. § 103(a) as being obvious in view of Takata et al. in combination with Yoshioka. The teachings of Takata et al. have been discussed above. The Examiner's position is that while Takata et al. does not teach a heat treatment step in which removal of moisture is inhibited, it would have been obvious to combine the teachings of Takata et al. with the teachings of Yoshioka, which discloses supplying a gas containing a water component into the casing.

However, it is respectfully submitted that Claims 17-19 and 21 are not obvious in view of Takata et al. in combination with Yoshioka. As discussed above, Claims 17-19 and 21 expressly recite that the heat treatment step takes place under conditions which inhibit the removal of moisture from the precursor during the heat treatment. In contrast, as discussed above, the method of Yoshioka supplies a gas containing a water component into the casing. Since the precursor comes in contact with the water, a state of equilibrium is reached in which moisture is transferred to and removed from the precursor at the same rate. Accordingly, Takata et al. in combination with Yoshioka does not disclose or suggest inhibiting the removal of moisture present in the precursor as recited in Claims 17-19 and 21. Moreover, the purpose of Yoshioka is to render "either the radiated portion or irradiated portion... soluble in alkali" (*see* col. 1, lines 63-65 of Yoshioka). In contrast, as stated above, the purpose of wrapping the precursors is to allow the coating at the edges of the printing plates to be more resistant to the developer, and not less resistant. Accordingly, it would not be obvious to one of ordinary skill in the art to combine Yoshioka with McCullough et al. to practice the present invention. Accordingly, it is respectfully submitted that Claims 17-19 and 21 are not obvious in view of Takata et al. in combination with Yoshioka. In view of the foregoing,

withdrawal of the rejection under 35 U.S.C. § 103(a) of Claims 17-19 and 21 as obvious in view of Takata et al. in combination with Yoshioka is respectfully requested.

Claim 9 has been allowed. Claim 9 has been further amended to conform with the language of Claims 17-21. Similarly, Claim 1 has been amended to conform with the language of Claims 17-21. It is respectfully submitted that the amendment to Claim 1 and Claim 9 is a purely formal amendment and does not change the scope of the respective claims.

Claim 10 has been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. Accordingly, Claim 10 has been rewritten in independent form to include the limitations of base Claim 1. It is respectfully submitted that Claim 10 as amended is allowable over the cited references.

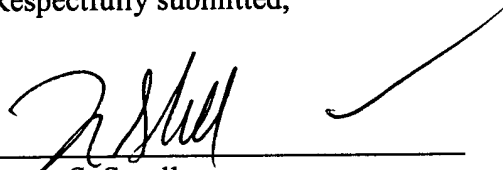
New Claims 22-40 have been added to further claim the invention. New Claims 22-35 depend directly or indirectly on Claim 10 and are supported by Claims 2-9 and 11-16, respectively, as originally filed. Accordingly, it is respectfully submitted that new Claims 22-35 do not constitute new matter. Since new Claims 22-35 depend on Claim 10, which is allowable over the cited references as discussed above, it is respectfully submitted that new Claims 22-35 are also allowable. New Claims 36-40 are supported by Claims 17-21, respectively, and by Claim 10 as originally filed. Accordingly, it is respectfully submitted that new Claims 36-40 do not constitute new matter. Since each of new Claims 36-40 recites the limitation, recited in Claim 10 as originally filed, that the method is applied to a stack of at least 100 precursors, and since Claim 10 is allowable

over the cited references as discussed above, it is respectfully submitted that new Claims 36-40 are also allowable.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

In view of the foregoing amendments and remarks, reconsideration and allowance of all the claims in this application are respectfully requested.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'L. Sorell', is written over a horizontal line. To the right of the signature is a large, sweeping checkmark.

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Specification:**

The paragraph beginning at p. 10, lines 12-15 has been replaced with the following:

The time for the heat treatment can also be determined by trial and error.

Generally, the lower the temperature for the heat treatment, the longer the time should be.

In all cases however we favor carrying out the heat treatment for at least 4 hours, preferably for at least 12 hours, more preferably for at least 24 hours and most preferably for at least 48 hours.

**In the Claims:**

Claims 1, 9, and 10 have been amended as follows:

1. (Twice Amended) A method of providing a precursor which comprises an imagable coating comprising a polymeric composition on a substrate, [the coating comprising a polymeric composition,] wherein the method [includes] comprises a heat treatment step applied to the precursor, the heat treatment step taking place under conditions which inhibit the removal of moisture from the precursor during the heat treatment, wherein the precursor is held at an elevated temperature for at least 12 hours in the heat treatment.

9. (Twice Amended) A method of providing a precursor which comprises an imagable coating comprising a polymeric composition on a substrate, [the coating

comprising a polymeric composition,] wherein the method [includes] comprises a heat treatment step applied to the precursor, the heat treatment step taking place under conditions which inhibit the removal of moisture from the precursor during the heat treatment, wherein the method is applied to a precursor coil.

10. (Amended) [The method of Claim 1] A method of providing a precursor which comprises an imagable coating comprising a polymeric composition on a substrate, wherein the method comprises a heat treatment step applied to the precursor, the heat treatment step taking place under conditions which inhibit the removal of moisture from the precursor during the heat treatment, wherein the method is applied to a stack of at least 100 precursors.

New Claims 22-40 have been added.